State of California
The Resources Agency
DEPARTMENT OF WATER RESOURCES
Northern District

RECREATION USE SURVEY OF INDIAN CREEK, PLUMAS COUNTY 1977

Technical Information Report No. 79-2

Prepared under the supervision of
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by

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This report was prepared to summarize information collected under WO 1600-5999 as part of an evaluation of the 1976-77 drought in California and to describe methodology for evaluating a proposed revised operation schedule for Antelope Reservoir. Although this report was reviewed by appropriate individuals in the Department and other agencies, it is intended for internal use and should be considered preliminary and subject to revision.

August 1979

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SUMMARY

A survey was conducted in summer, 1977, to provide data on streamside recreation along Indian Creek and lower Red Clover Creek in Plumas County. The purpose of the study was to estimate the amount and type of recreation use occurring under low flow conditions and to develop methods for evaluating a proposed change in the operation schedule for Antelope Reservoir. The random sample survey was stratified by distinct stream reaches and use periods. Roving use counts were combined with interviews of recreationists to gather information which included activity participation, length of stay, visitor origin, and other data.

An estimated 37,000 hours of recreation use (15,000 recreation days) occurred between May 28 and September 5, 1977. The most frequently observed activities were swimming and/or beach use, picnicking and relaxing, camping, and fishing. In addition, it was found that: 23 percent of all visitors lived in Plumas County, 66 percent said Indian Creek was their primary destination, and about 50 percent of the visitors stayed overnight in the area. Results obtained from the 175 parties interviewed were comparable with data from use counts.

Only 10 percent of parties interviewed indicated that streamflow was a primary factor in the decision to come to Indian Creek or Red Clover Creek. However, conclusions regarding the specific effects of low streamflows on recreation require information from subsequent surveys during normal flow conditions.

INTRODUCTION

The Northern District, Department of Water Resources, conducted a recreation use survey on Indian Creek, Plumas County, from May 28 to September 5, 1977. This was part of a study to determine the influence of low flows due to drought and reduced releases from Antelope Reservoir on fish and streamside recreation. In addition, the study provided an opportunity to develop the methodology needed to evaluate a proposed increase in the flow release from Antelope Dam, scheduled to start in 1978.

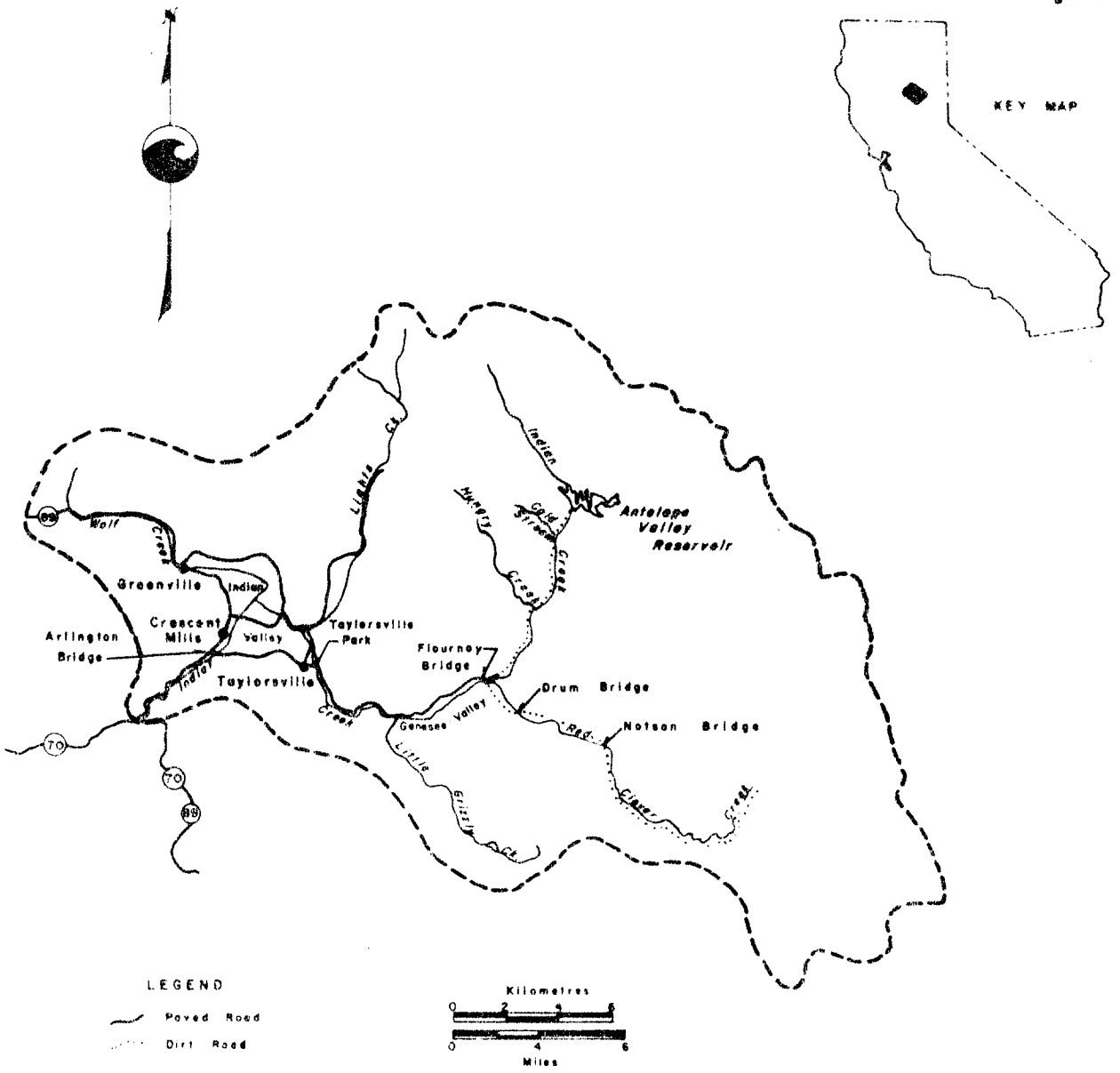
Description of Study Area

Indian Creek is a major tributary of the East Branch North Fork Feather River in Plumas County. This scenic area was once occupied by Maidu Indians. It has a rich history of gold mining, ranching, and lumber production. In recent decades, recreation use has increased rapidly with water being a major attraction. Employment today is divided among services, government, logging, and lumber manufacturing. Ranches operate in Indian and Genesee Valleys.

The 1977 study area was limited to Indian Creek from Flournoy Bridge in Genesee Valley downstream to its mouth, and the lower seven miles of Red Clover Creek upstream to Notson Bridge (Figure 1). Eleven miles of Indian Creek from Antelope Dam downstream to Flournoy Bridge were not surveyed in 1977 because the access road was closed for reconstruction. The study area was divided into five stream sections: Indian Creek in Genesee Valley from Flournoy Bridge to Taylorsville Park; Taylorsville Park and vicinity, including the campground and nearby creek; Indian Creek in Indian Valley between Taylorsville Park and Arlington Bridge; Lower Indian Creek extending downstream from Arlington Bridge to the mouth; and Red Clover Creek from Notson Bridge downstream to its confluence with Last Chance Creek near Flournoy Bridge.

The five stream sections differ in characteristics of water quality, topography, vegetation, facilities available, access, and land ownership (Appendix I).

Figure 1



Recreation Survey on Indian Creek and Red Clover Creek 1977

METHODS

Recreation Use Counts

Use counts were made on randomly selected dates within three strata (weekdays, weekends, and holidays). Eleven days of the 101-day study period from May 28 through September 5, 1977, were surveyed; 6 of 68 weekdays, 3 of 24 weekend days, and 2 of 9 holidays. Five one-hour counts of recreation use were made in the study area each day at regular periods, beginning at 8 a.m., 10 a.m., 1 p.m., 3 p.m., and 5 p.m.

Surveys were made from a vehicle or on foot, as necessary, to check access and recreation sites. Recreationists and their vehicles were counted and recorded by the recreational activities with which they were associated. Observations were recorded by activity and survey reach (Appendix II). The five daily counts were totalled and multiplied by factors that accounted for recreation use in the daylight periods not counted. Similarly, the resulting daily figures were expanded to estimate the total recreation hours for all days in each stratum. Adding the stratum totals provided an estimate of recreation hours for the study period. To estimate total recreation days, total recreation hours were divided by weighted average length of stay. Confidence intervals were calculated using the method described by Abrahamson and Tolladay (1959).

Interviews

Recreationists on Indian Creek were contacted during and between use counts. The interviewer attempted to include a cross-section of activities in as random a manner as possible. Interview effort was distributed approximately in proportion to density of use. When use was low, most of the parties were interviewed, but during peak periods this was impossible. The information gathered from each party included location of residence, people per vehicle, recreation activities, overnight accommodations, length of stay, and special equipment (Appendix II). In addition, the interviewer asked the open-ended question, "Is there any particular reason you came to Indian Creek (or Red Clover Creek) for your trip, rather than some other stream or area?".

Water and Air Temperatures

Water and air temperatures along Indian and Red Clover Creeks were taken irregularly at several locations. An attempt was made to measure temperatures at the beginning, middle, and end of the survey day to determine the daytime range.

RESULTS

Recreation Use

Total recreation use on Indian and Red Clover Creeks was estimated at 37,000 recreation hours ($\pm$ 6,000 hours) for the period between May 28 and September 5, 1977. Total recreation hours divided by weighted average length of stay indicated about 15,000 recreation days of use in 1977. A recreation hour is one hour of participation in any recreation activity by one person; a recreation day is participation by one person for all or part of a day.

Overall, swimming and/or beach use was the major activity category followed by picnicking and relaxing, camping, and fishing. Taylorsville Park and lower Indian Creek received by far the most use (Table 1).

Interview Data and Visitor Characteristics

There were 175 parties interviewed in 1977, representing 611 persons and 180 vehicles. The mean number of people per party was 3.5, and the average number of people per vehicle was 3.3. Over one-third of the parties had two people. The mean length of day-use visits was 2.6 hours, with almost 40 percent of visitors staying an hour or less. Overnight stays averaged 4.6 days; about 60 percent of overnight stays were evenly divided between 2 and 3 days (1 or 2 nights). Appendix III shows the length of stay for day and overnight visitors in the parties interviewed. Over half of the people interviewed said they would swim or sunbathe. The second most popular activity was "just relaxing", followed by camping and fishing (Table 2). About 77 percent of the anglers fished for trout, 5 percent for "anything that bites", and 20 percent for crayfish in lower Indian Creek. The activity percentages add up to more than 100 percent because many of the visitors participated in more than one activity.

TABLE 1

ESTIMATED RECREATION HOURS BY ACTIVITY AND SURVEY AREA

Activity	Upper Indian Creek	Genesee Valley	Taylorsville Park	Indian Valley	Lower Indian Creek	Lower Red Clover Creek	Total Recreation Hours	Percent of Total
Fishing (including crayfish and bait gathering)	--	700	300	0	2,300	900	4,200	11
Swimming and beach use	--	1,500	2,100	0	5,900	1,000	10,500	28
Picnicking and relaxing	--	700	5,400	0	1,800	1,000	8,900	24
Camping	--	1,100	3,600	0	600	3,300	8,600	23
Children playing	--	50	600	0	200	150	1,000	3
Horseback riding	--	500	500	0	0	0	1,000	3
Gold seeking and rock hounding	--	0	0	0	1,000	0	1,000	3
Walking for pleasure	--	200	200	0	450	50	900	3
Bicycle riding and motorbiking	--	100	300	0	0	0	400	1
Other 1/	--	0	100	0	350	50	500	1
Recreation Hour Totals	Not Counted	4,850	13,100	0	12,600	6,450	37,000	100

1/ Includes sightseeing, shooting, rafting, berry picking, and miscellaneous activities. Rodeo attendance at Taylorsville Park is not included in these estimates.

TABLE 2

PERCENT OF PEOPLE PARTICIPATING IN EACH RECREATION ACTIVITY, FROM INTERVIEW DATA (N = 611)

Activity	Percent of People
Swimming/beach use	51
Just relaxing	37
Camping	33
Fishing (and bait gathering)	28
Picnicking	9
Attend rodeo	8
Walking for pleasure	7
Sightseeing	6
Horseback riding	6
Bicycle riding	4
Gold seeking	3
Motorcycling	2
Boating/rafting	1
Other miscellaneous	5
Total	200

About 49 percent of the visitors came to the creeks for day use only; they lived close enough to return home at night. Thirty-three percent of the visitors camped at either the county campground or at undeveloped areas along Indian Creek and Red Clover Creek. The remaining people stayed somewhere in the general area but not on the creeks. This category includes recreationists who stayed at resorts, cabins, motels, or with friends or relatives away from the creeks and who visited the creeks during the day.

Of day-users, 32 percent came to the creek as a primary destination, 40 percent were stopping on the way to some other place, and 28 percent were staying in the surrounding area. Of those staying overnight in the study area, 85 percent said it was their destination and 15 percent said they were stopping en route elsewhere.

Modes of overnight accommodations, in order of frequency, were: travel trailers (28 percent); tent and sleeping out (each 20 percent); pickup camper (16 percent); motor home, van, or bus (11 percent); and tent trailer (5 percent) (Appendix III).

About 23 percent of the recreationists interviewed came from Plumas County. The next highest counties of origin were Butte County

(11 percent) and Los Angeles and Sacramento Counties (8 percent each). The San Francisco Bay area counties accounted for 22 percent of the visitors as did the Sacramento Valley counties. About 13 percent of the persons in parties interviewed were from out of state, mostly the Reno-Tahoe area of Nevada. Figure 2 illustrates the relative significance of visitor origin areas.

Potential Impact of Drought on Recreation Use

The 1976-77 drought in California affected Indian Creek severely. Antelope Reservoir was drained in 1976 to remove nongame fish species, and with the severe drought conditions, it did not refill in 1977. Average discharges from Antelope Dam were reduced to about 1 cfs during June, July, and August, 1977. Minimum flows at Taylorsville reached 10 cfs in late July and August. Average flows at the gaging station near Crescent Mills fell from about 24 cfs in June to 4 cfs in July and 1 cfs in August. Minimum flows were the lowest ever recorded, less than 1 cfs in late July, 1977 (Figure 3). The overall discharge at Crescent Mills during the 1977 water year was less than 8 percent of the 56-year average. Flow differences at the three stations are due to diversions and tributary streams.

The weather during the study was dry and warm. Due to warm weather and low flows, high water temperatures were common during July and early August (Table 3). Light precipitation occurred only during the nights of June 16 and 17. Winds and clouds were common in the afternoon, while mornings were more often clear and calm. Campfires were banned by the U. S. Forest Service and California Department of Forestry outside developed sites during August 1977, due to extreme fire danger.

The principle tool used to evaluate drought impacts on Indian Creek recreation will be comparison of estimated recreation use with the results of subsequent surveys. The 1977 survey alone cannot identify any differences in use between dry and normal years.

However, in 1977 the visitor interview process addressed the issue with the open-ended question: "Is there any particular reason you came to Indian Creek (Red Clover Creek) for your trip, rather than some other stream or area?" This question sought to determine the extent to which streamflows were a conscious concern of recreationists. About 10 percent of the parties

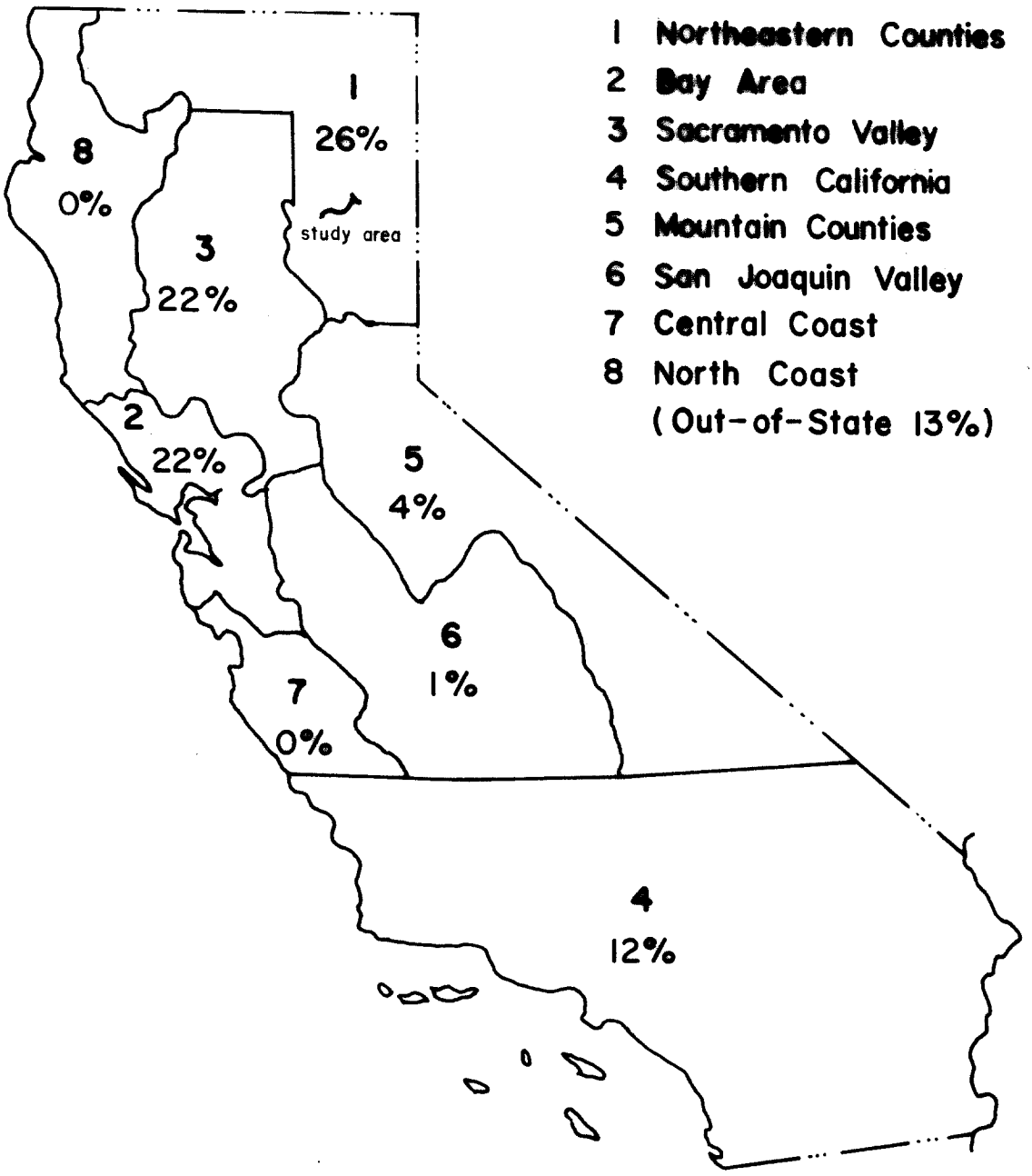


Figure 2

Residence of Recreation Visitors to Indian Creek and Red Clover Creek, Per Cent Composition by Area 1977

Figure 3

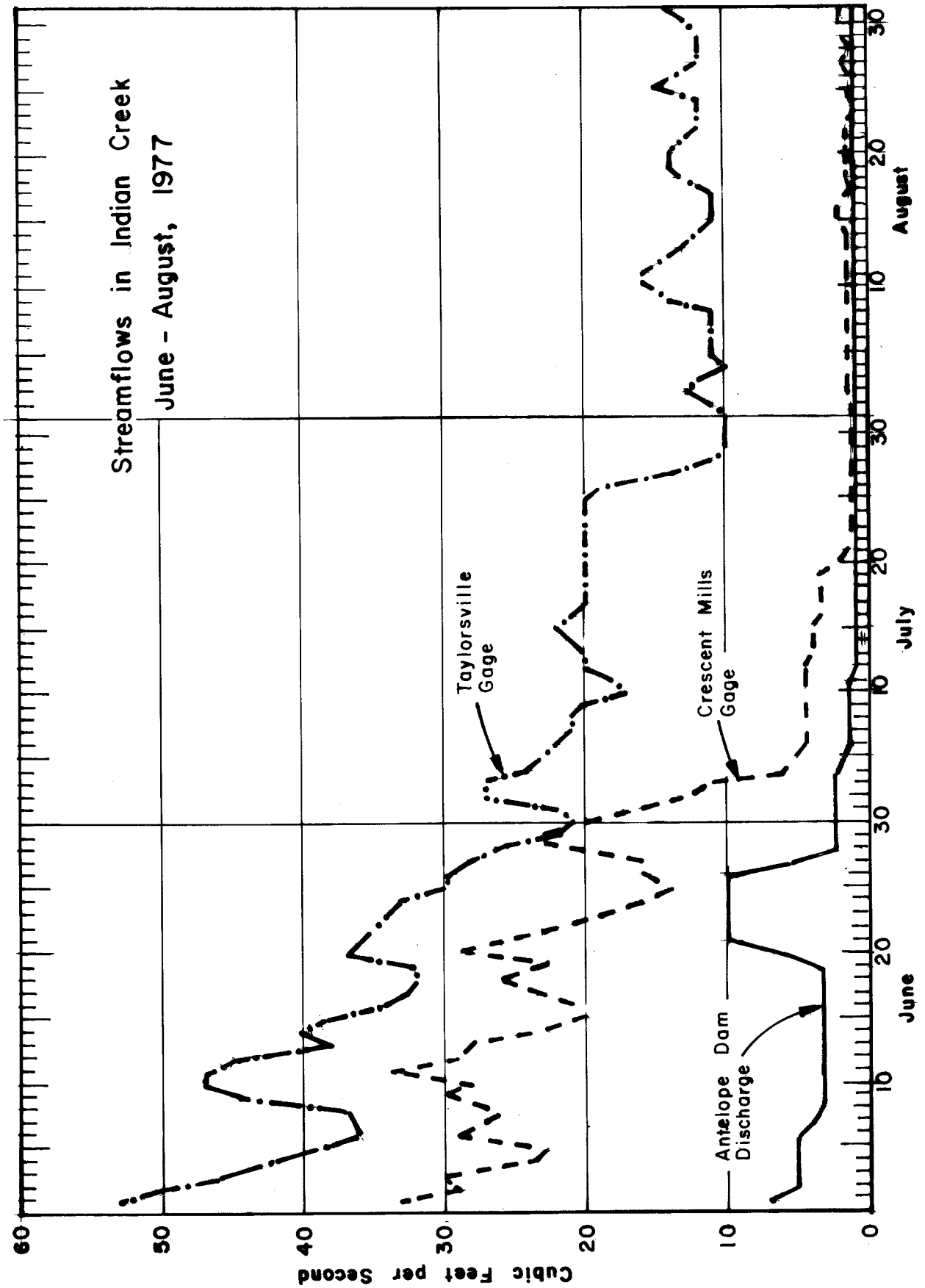

Streamflows in Indian Creek
June - August, 1977
Taylorsville Gage
Crescent Mills Gage
Antelope Dam Discharge
Cubic Feet per Second
0
10
20
30
40
50
60
June
July
August
10
20
30

TABLE 3

RANGE IN AIR AND WATER TEMPERATURES IN RED CLOVER AND INDIAN CREEKS DURING SURVEY PERIOD, BY DATE

Location		Survey Date 6/17 & 18 Low - High °F		7/2 Low - High °F		7/17 & 18 Low - High °F		8/3 Low - High °F		8/4 Low - High °F		8/16 Low - High °F		8/27 Low - High °F		9/4 Low - High °F	
Red Clover Creek (Drum Bridge)	Air	61	80	-	-	66	86	-	93	-	90	50	-	48	-	-	-
	H_2O	-	-	-	-	57	68	60	68	59	66	51	61	50	56	50	58
Genesee Valley (below Little Grizzly Cr.)	Air	-	-	63	79	69	90	-	85	-	93	50	93	52	78	-	88
	H_2O	-	-	-	-	59	71	-	72	64	68	60	-	59	-	-	-
Taylorsville Park	Air	65	82	-	-	70	91	-	-	61		50	-	-	-	-	81
	H_2O	-	-	-	-	61	81	70	-	70	78	64	75	-	70	61	68
Indian Valley (Arlington Bridge)	Air	-	-	63	82	70	89	-	-	-	89	50	93	50	79	46	86
	H_2O	-	-	63	72	-	-	71	-	71	-	-	-	59	-	-	-
Mouth of Indian Creek	Air	63	82	63	82	70	90	69	93	60	89	48	98	45	80	-	-
	H_2O	66	71	71	73	62	72	71	77	70	77	64	75	55	68	62	66

interviewed indicated that they came to Indian Creek (or Red Clover Creek) because it had water, or at least more water than other streams. The most frequent response (19 percent) was that the stream was convenient to home (Table 4).

Many local residents seemed to feel that Indian Creek had more water for recreation than other streams in the area. There were still large pools on lower Indian Creek and in Genesee Valley suitable for swimming most of the summer. Generally, water-related recreation and aesthetic values appeared to be greatly reduced in 1977 compared to "normal" water years. As the summer drought continued, these values became progressively diminished. Fishing became poor and difficult over the summer due to low streamflows, high water temperatures, and weedy aquatic growth. However, early June fishing was productive in lower Red Clover Creek and in Indian Creek in Genesee Valley.

TABLE 4

REASONS GIVEN FOR VISITING INDIAN CREEK
AND RED CLOVER CREEK BY SURVEY AREA

Reason Given or Response	Genesee Valley	Taylors-ville Park	Indian Valley	Lower Indian Creek	Lower Red Clover Creek	Total	Percent
Local - convenient, live close	10	8	0	16	3	37	19
Road close, access available	4	10	0	19	3	36	18
None - no reason given	9	4	0	18	1	32	16
Scenery attractive	1	5	0	22	2	30	15
Prior experience - been there before	3	2	0	7	11	23	12
Water available	5	1	0	8	5	19	10
Seclusion - privacy available	0	6	0	1	4	11	6
Recommended by another source	1	0	0	3	0	4	2
Gold available	0	0	0	3	1	4	2
Total	33	36	0	97	30	197	100

DISCUSSION

Understanding the limitations of the recreation survey and interviews helps put the data obtained in perspective. This section describes the constraints and compared results obtained from use counts and interviews. Together, the counts and interviews provide a good picture of total use.

Limitations of Use Counts

Most recreationists on the creeks were readily observed during use counts, but accurate counts were difficult in certain areas with poor visibility. Each survey reach except Taylorsville Park had a few such areas. With good visibility conditions and when use was low, the counts were quite accurate. However, the use counts did not accurately reflect the proportion of certain activities such as sightseeing and hiking. These activities are better estimated by interviews.

Vehicle access points were checked on each count, but occasionally people with the vehicles were not found. The counts of unassociated vehicles indicate the estimate of total recreation use may be as much as 18 percent low.

The total use estimate of 37,000 recreation hours is more accurate than the estimates of use for each individual activity. The confidence interval of $\pm$ 6,000 hours indicates only the probable accuracy of expanding 11 days of counts to estimate use for the 101-day study period. It presumes the estimate for each survey day is accurate. Realistically, the best estimate of recreation use in summer, 1977, is probably about 43,000 recreation hours, considering the number of unassociated vehicles and confidence limits.

On July 2, during the rodeo at Taylorsville, 262 people were present in the rodeo grounds and 81 others at the county park and campground. Those at the rodeo itself were not included in the recreation hour estimates, since it was a special event unrelated to stream recreation. However, most visitors in the vicinity were there largely for the rodeo, and some rodeo spectators and participants showed up in counts elsewhere along the creek that day.

Limitations of Interviews

Interview coverage was rather thorough. About 30 percent of the estimated number of recreationists on the creeks were interviewed. The coverage on specific dates varied roughly from 14 to 88 percent, with each stratum represented about equally.

Despite attempts to contact recreationists randomly, several sources of bias are possible. Bias may be introduced by conscious or unconscious selection of visitors in some recreation activities or having certain characteristics of age, race, or sex. Another source of bias is failure to cover all access points, as with private lands and residences along the creeks. Strict sampling methods were not used in this survey to obtain absolute randomness in the interviews.

Comparison of Use Counts and Interviews

Comparison of the distribution of use counts and interviews indicates the degree to which each is representative of the underlying population. The distribution of recreationists observed and interviewed was fairly close (Table 5). Long-term campers at Taylorsville Park were not interviewed repeatedly and peak use periods at the park were impossible to interview in proportion to other areas with more stable use. Visitors in Genesee Valley were somewhat over-represented in the interviews.

TABLE 5

DISTRIBUTION OF INTERVIEWS COMPARED TO ESTIMATED RECREATION USE

Survey Area:	Genesee Valley	Taylors-ville Park	Indian Valley	Lower Indian Creek	Lower Red Clover Creek	Total
Percent of Recreationists Interviewed	22	22	0	41	15	100%
Percent of Recreation Hours	13	35	0	34	18	100%

Comparison of what people said they did with what we saw them do also indicated a reasonably close correlation between the two samples (Table 6).

TABLE 6

COMPARISON OF ACTIVITY COMPOSITION FROM INTERVIEWS OF RECREATIONISTS AND USE COUNTS

Activity:	Swimming and Beach Use	Picnicking and Relaxing	Fishing*	Riding**	Gold & Rock Seeking	Walking for Pleasure	Other/ Misc. ***	Total
Percent of Recreationists Interviewed	31	32	17	7	2	4	7	100%
Percent of Recreation Hours	37	31	15	5	4	3	5	100%

* Including crayfish and bait gathering

** Horse, bike, motorbike

*** Includes playing, sightseeing, shooting, berry picking, rafting, and miscellaneous activities

The data indicate that the use counts probably slightly underestimated miscellaneous activities (sightseeing, motorcycle riding, bicycling, walking, etc.) and the interviews under-represented swimming and beach use. The differences are logical due to the nature of the activities. For example, most sightseeing is done from vehicles on roads and is difficult to distinguish from mere travelling. The lower number of interviews for swimming and beach use probably reflects a number of nude swimmers who were not contacted.

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APPENDIX I

DESCRIPTION OF RECREATION SURVEY AREAS

Upper Indian Creek

The first 11 miles of creek below Antelope Dam were not surveyed in 1977 because the access road was closed for reconstruction. During 1977, water releases from Antelope Dam were controlled at about 5 percent of the 12-year average. Normal low flows have been 10 to 12 cfs in this reach since Antelope Reservoir began operation in 1964. However, the minimum flow below the dam was 1 cfs in July, August, and September 1977. The stream remains cold in summer due to deep-water outflow from the dam and is usually slightly turbid.

Indian Creek in Genesee Valley

The creek gradient is slight in the long valley from Flournoy Bridge to Taylorsville Park. Above Little Grizzly Creek, Indian Creek flows through private ranchlands closed to trespass. Below there, the valley narrows and the creek flows through alternate National Forest and private ownership. Black oak, ponderosa pine, and Douglas fir are common. The paved county road occasionally comes within sight of the creek. There are no developed recreation facilities in this study reach. Important public access points are at Flournoy Bridge and a large flat with pine and oak cover approximately midway in the 13-mile reach. A dirt road leads across the flat to the creek at secluded points. The stream is characteristically clear and cool. Average low flows are 30 cfs at Flournoy Bridge and 40 cfs one mile above Taylorsville. The fishery provides good angling at times for rainbow trout, as well as Sacramento squawfish, suckers, and a few brown trout.

Taylorsville Park and Campground Area

The picnic, camping, and rodeo facilities just outside of Taylorsville are the only developed recreation facilities on the creeks in the survey area. Plumas County maintains the facilities. Indian Creek is

easily accessible in the one-quarter mile adjacent to the picnic area. The campground and rodeo arena are on the other corners of a three-way intersection. Tall ponderosa pine shade the level picnic area; oak, pine, and Douglas fir shelter the moderately sloped campground. In 1977, there were seven picnic sites plus a group barbecue area, restrooms, horseshoe pits, and piped water in the picnic area and eight campsites in the campground area. Rainbow trout are occasionally caught in the reach; other fish common to Indian Valley are probably also present. Mill Race Ditch, the major water diversion for Indian Valley, normally removes up to 42.3 cfs from Indian Creek about one mile above Taylorsville. It removed all the streamflow at the Mill Race Diversion Dam during the 1977 study period.

Indian Creek in Indian Valley

In broad, level Indian Valley, the creek flows through fenced pastures and meadows in private ownership. Most of the stream is far from any roads. Difficult access is available at the bridges and from the road near the mouth of Lights Creek. Significant amounts of water are diverted for seasonal pasture irrigation, some being returned to the creek before it leaves the valley. During the 1977 study period, streamflows consisted of local accretions of up to 7 cfs. About two of the nine creek miles are channelized. The reach has Sacramento squawfish, suckers, carp, and rainbow trout, but fishing is generally poor.

Lower Indian Creek

The lower seven miles of Indian Creek drop in elevation from 3,500 feet at Arlington Bridge to 3,000 feet at the mouth. The rugged canyon has some spectacular views and is well wooded with oak, pine, and Douglas fir. State Highway 89 follows the right bank of the creek; Western Pacific Railroad is high above the left bank at the mouth and crosses the creek about one mile below Arlington Bridge. Recreation access is available from pullouts and short spur roads off the highway at many points, but several sections of the creek are secluded from view. There are no developed recreation facilities. The varied stream channel offers small beaches, pools, rock outcroppings, and rapids. The water is normally somewhat turbid and foamy, which detracts from its aesthetic appeal, and becomes quite warm in summer.

Average low flows below Crescent Mills are about 30 cfs. The fishery is made up primarily of rainbow trout, with some Sacramento squawfish, suckers, brown trout, carp, and brown bullhead. Fishing is fair in spring and fall. Crayfish are abundant and enter the fishery in summer.

Red Clover Creek

The seven-mile portion of Red Clover Creek below the meadow at Notson Bridge drops 1,500 feet in elevation through a deep, timbered canyon of granite. Except for the lower two miles of posted, private property, the creek flows through National Forest land. An unsurfaced road closely follows the lower creek, then crosses at Drum Bridge to traverse the mountainside high above the stream. The creek is consistently clear in summer, and average summer low flows are about 12 cfs. The fishery consists of rainbow and brown trout, with fair fishing for small catchables, and occasional fish of 14 to 16 inches. This creek was surveyed as a substitute for upper Indian Creek and to monitor the effect of the drought on its recreation use.

DWR-7

California Department of Water Resources

River Use Survey

ACTIVITY DISTRIBUTION COUNT

INDIAN CREEK (Plumas County)

					LOCATION - REACH	COMMENTS
					TIME START	
					TIME FINISH	
					AIR TEMP.	
					WEATHER	
					WATER TEMP.	
					FLOW C.F.S.	
					APPEARANCE	
					KAYAKING	
					CANOEING	
					RAFTING	
					SHORE FISHING	
					CRAY FISHING	
					BEACH USE	
					SWIMMING/WADING	
					AQUATIC NATURE STUDY	
					GOLD SEEKING	
					SIGHTSEEING	
					WALKING FOR PLEASURE	
					BICYCLE RIDING	
					MOTORCYCLING/ ORV	
					HORSEBACK RIDING	
					JUST RELAXING	
					CAMPING	
					USING CAMPING facilities	
					USING PICNIC facilities	
					PICNICKING	
					PARTICIPATE IN OUTDOOR GAMES	
					ATTD. EVENT play, sports	
					CHILDREN PLAYING	
					ATTD. INTERP. PROGRAM	
					NATURE STUDY-FLORA	
					BIRDWATCHING	
					PHOTOGRAPHY/PAINTING	
					TOTALS	

STRETCH NO. —

DATE: — —

SHEET NUMBER — — —

Recreation Use Survey

DATE: DAY (1 2) MONTH (3 4) YEAR (5 6)

SURVEY AREA (7 8 9)

INTERVIEW SITE (10)

STRATA NO. (11)

WEATHER

START OF PERIOD (12 13)

END OF PERIOD (14 15)

MADE BY

WEEK END (16) WEEK DAY (17)

SHEET NUMBER (18 19)

COMMENTS:

LINE NUMBER	NUMBER OF PERSONS IN VEHICLE	USE TYPE-CODE 1	DURATION OF VISIT: OVERNIGHT (No of Days): CAMPING	DURATION OF VISIT: OVERNIGHT (No of Days): STAYING IN AREA	DURATION OF VISIT: DAY USE (Number of Hours)	CAMPING OVERNIGHT ACCOMMODATION: TRAVEL TRAILER	TENT TRAILER	PICKUP CAMPER	MOTOR HOME /VAN/BUS	TENT	SLEEPING OUT /CAR/BOAT	PLACE OF OVERNIGHT ACCOMMODATION: MOTEL RESORT	PRIVATE CAMPGROUND	PUBLIC PARK /CAMPGROUND	FRIENDS OR RELATIVES	CABIN OR SUMMER HOME	OTHER	RECREATIONAL ACTIVITIES: SHORE FISHING	BOAT FISHING	PICNICKING	USING PICNIC FACILITIES	SIGHTSEEING	BEACH USE	SWIMMING/WADING	WALKING FOR PLEASURE	BICYCLE RIDING	MOTORCYCLING	HORSEBACK RIDING	JUST RELAXING	WATER SKIING	PLEASURE BOATING	TYPE OF FISHING	TYPE OF BOAT: TRAILERED BOAT	RENTAL BOAT	SAILBOAT/CARTOP	CANOE / KAYAK	BOAT MOORED	RAFT (Other Inflatables)	TYPE OF BOATING: MOTOR BOATING	SAILING	KAYAKING	CANOEING	RAFTING	OTHER	SPECIAL EQUIPMENT: BICYCLE	MOTOR BIKE	DUNE BUGGY	ALL TERRAIN VEHICLE	OTHER	SPECIAL QUESTIONS	PLACE OF RESIDENCE (COUNTY AND ZIP CODE)
01																															Trout Anything Crappie																								
02																																																					
03																																																					
04																																																					
05																																																					
06																																																					
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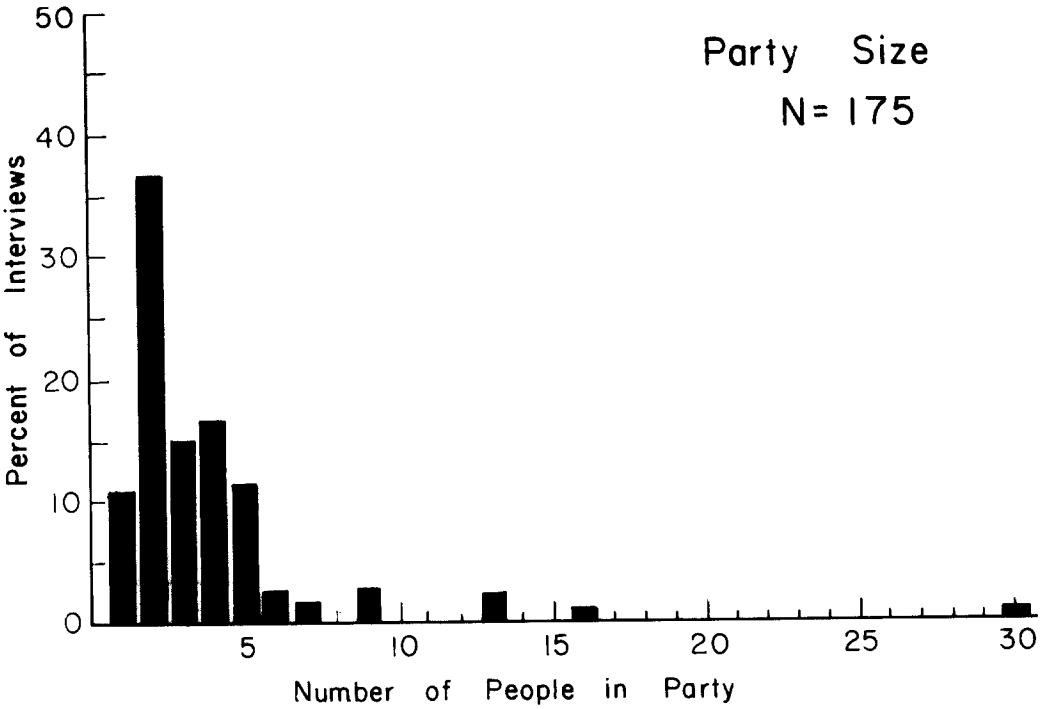
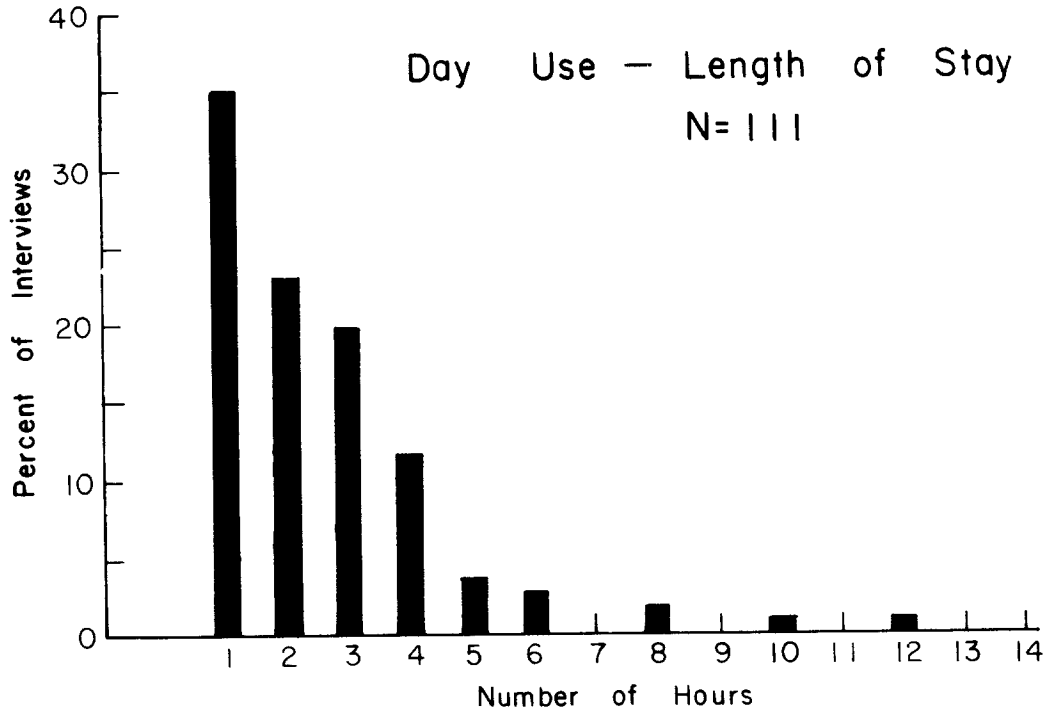
CODE 1-USE TYPE
D- Destination E-Enroute S- Staying in Area

Revised June 24 1974

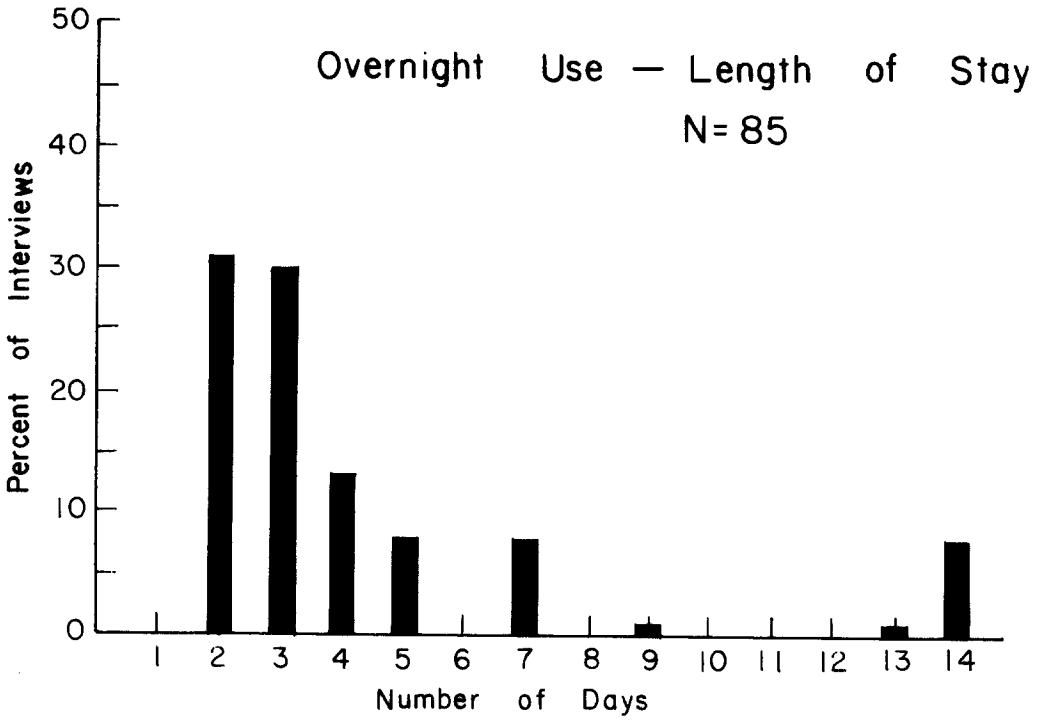
Appendix III

Visitor Characteristics — Indian Creek, 1977





Appendix III (continued)



Place of Overnight Accommodation

Type of Place	Percent of Interviews
Undeveloped Area	41
Public Campground / Park	24
Friends or Relatives	13
Cabin or Summer Home	12
Motel / Resort	8
Private Campground	2

Camping Accommodation

Type of Accommodation	Percent of Interviews
Travel Trailer	28
Tent	20
Sleeping Out	20
Pickup Camper	16
Motorhome / Van	11
Tent Trailer	5